DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) 1993 INCREMENTAL UNIT COST

STATE: FLORIDA DATE: 04 JAN 1993

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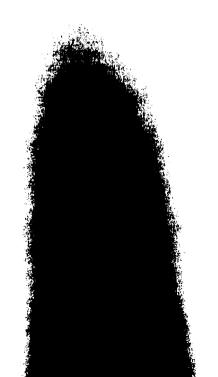
LINE	DESCRIPTION	SOURCE	AMOUNT
	BASE FILE		
1	PROGRAM DEVELOPMENT, HOURS PER CO FILE		0.13
3	DIRECTLY ASSIGNED LABOR COST PER HOUR PROGRAM DEVELOPMENT COST PER CO FILE	LN1xLN2	\$44.35 \$5.77
4	DATA PROCESSING COST PER CO FILE		\$2.30
5	MAG TAPE, PACKAGING AND DELIVERY COST PER CO FILE		\$0.40
6	GROSS RECEIPTS (GRT) TAX		1.0138
7	TOTAL COST PER CO	(LN3+LN4+LN5)LN6	\$8.58
8	AVERAGE LISTINGS PER CO FILE		14372
9	TOTAL COST PER LISTING	(LN7/LN8)	\$0.001

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LINE	DESCRIPTION	SOURCE	AMOUNT
	FILE UPDATES		
1	PROGRAM MAINTENANCE, HOURS PER CO FILE PER MONTH		0.01
2	DIRECTLY ASSIGNED LABOR COST PER HOUR		\$44.35
3	PROGRAM MAINTENANCE COST PER CO FILE PER MONTH	LN1xLN2	\$0.44
4	DATA PROCESSING COST PER CO FILE PER MONTH		\$2.41
5	MAG TAPE, PACKAGING AND DELIVERY COST, CO FILE PER MONTH		\$8.80
6	GROSS RECEIPTS (GRT) TAX		1.0138
7	TOTAL COST PER CO FILE PER MONTH	(LN3+LN4+LN5)LN6	\$11.81



Christopher C. Pflaum, Ph.D. President

Spectrum Economics, Inc.

<u>General</u>

Dr. Pflaum is the President of Spectrum Economics, Inc. He specializes in financial and regulatory policy analysis and the implications of those policies for firms operating in markets undergoing fundamental structural change. Dr. Pflaum also consults and testifies in civil litigation in the areas of anti-trust, fraud, breach of contract, trade secrets disputes, business interference, business valuation, and lost earnings and profits.

Experience

Prior to entering consulting, Dr. Pflaum was Senior Financial Economist and Acting Director of Revenue Requirements in the Policy Analysis and Research Division of the Illinois Commerce Commission. He is a nationally recognized expert on utility finance and property valuation and has presented papers and speeches in this area before numerous regulatory and financial groups.

Dr. Pflaum has developed numerous financial and decision analysis models for evaluating utility investment decisions and strategic plans. These models have explicitly recognized the interrelationships of pricing, financing and investment decisions.

Has developed computer and financial models to analyze damages in numerous business litigation assignments and lost earnings in personal injury, wrongful death, and discrimination cases.

Forecasted and testified to the long range financial implications of regulatory policies in numerous utility rate cases. These testimonies and reports have included cost/benefit analysis of CWIP in rate base, the effects of "creative financing" strategies on the financial conditions of troubled utilities, capital structure decisions, the costs and benefits of the "privatization" of municipal utility systems, utility diversification, and value of service pricing of electricity.

Work History

Principal, Houlihan Valuation Advisors, Inc.

Principal, Spectrum Economics, Inc.

Director of Financial Research, Lubow McKay Stevens & Lewis

Acting Director and Senior Financial Economist, Illinois Commerce Commission

Faculty, Finance Department, Southern Illinois University - Carbondale

Faculty, Finance Department, East Tennessee State University

Education

Ph.D. in Finance and Operations Management, University of South Carolina

MBA with concentration in Finance, University of Miami

BA in English, St. John's University

Articles and Papers

Local Gas Distribution Companies and Pipeline Market Power: Workable Competition or Unregulated Monopolization, with R. Lemon. American Public Gas Association, 1991.

"The Effects of the Tax Reform Act of 1986 On Energy Investment", Chapter in 1988 Energy Development Report, for the California Energy Commission.

"Regulatory Implications For Asset Valuation in Leveraged Buy Outs and Spin-Offs", with R. Trout and K. Zumwalt <u>Proceedings: Biannual Regulatory Information Conference</u>, National Regulatory Research Institute, Columbus, Ohio, 1986.

<u>Electric Rate Shock: Origins, Prospects and Remedies</u>, with Charles River Associates, for the U.S. Department of Energy, June, 1986.

"Depreciation Policy, Competitive Forces and The Cost of Capital," <u>Proceedings: Iowa State Regulatory</u> Conference, Ames, Iowa, 1986.

"Risk of Large Loss and Utility Capital Budgeting," with K. Zumwalt, <u>Proceedings: Biannual Regulatory Information Conference</u>, National Regulatory Research Institute, Columbus, Ohio, 1984.

"Restructuring the Troubled Electric Utility Industry: A Discussion of Three Approaches", with M. Collins, J. Gilan, et al., Illinois Commerce Commission Monograph, September, 1984.

"The Louisa Phase-In", with M. Collins, Illinois Commerce Commission Monograph, June, 1984.

"Regulatory Aspects of Bond Refunding," with M. Gombola, Eastern Finance Association, 1982.

"The Cost of Capital to a Public Utility," Illinois Commerce Commission, 1981 (contract research, also title of Ph.D. thesis partially supported by this grant)

"Leverage, Taxes and the Cost of Capital to a Public Utility," with L. Brooks, Financial Management Association, 1981.

"A Capital Asset Pricing Theoretic Model of Alternative Views of Regulation," Eastern Finance Association, 1979.

"Further Evidence on the Stationarity of Beta Coefficients," with R Roenfeldt and G. Griepentrog. <u>Journal of Financial and Quantitative Analysis</u>, March, 1978.

"An Examination of the Effects of the Rambouillet Accord on Exchange Rate Stability," Southern Finance Association, 1977.

Seminars and Speeches

"But is It Economics?: Handling Economic "Junk" Science" presented at the National Association of Railroad Trial Counsel, Counsel Winter Meeting, Phoenix, Arizona, February 1996.

"The Role of the Economist in Litigation" presentation sponsored by Lorman Education Services, Continuing Legal Education Seminar, Kansas City, Missouri, February 1996.

"What's Wrong With This Report?: Handling Economic "Junk" Science" presentation to Missouri Organization of Defense Lawyers (MODL), Tenth Annual Meeting, St Louis, Missouri. May, 1995.

"Damages in FELA Litigation," Continuing Legal Education Seminar, Kansas City, Missouri, November, 1994.

"Damages For Loss of Benefits in Railroad FELA Cases," National Association of Railroad Trial Counsel Winter Meeting, Palm Beach Florida, February, 1994.

"Business Damages, an Analytical Framework," Continuing Legal Education Seminar, Kansas City, Missouri, December, 1993.

"Evaluating Economic Damages in Personal Injury," presentation to the Annual Meeting of the American Board of Vocational Experts, Cancun, Mexico, March, 1993.

"Damages Estimates in Railroad FELA Cases," Continuing Legal Education Seminar Sponsored by Shook, Hardy & Bacon and Morrison & Hecker, Kansas City, Missouri, October, 1992.

"Economic Proof of Liability and Damage in Business Tort Cases," with J. Ward and F. Finch, Continuing Legal Education Seminar sponsored by the University of Missouri-Kansas City Law School and Kansas City Metropolitan Bar, Kansas City, Missouri, 1989.

"Financing Cogeneration," seminar for the Mid America Chapter of the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), Overland Park, Kansas, 1986.

"FASB As Phlogiston: An Economists Reflections on SFAS 71," Iowa State Regulatory Conference, Ames Iowa, 1985.

"Choosing Consultants for Prudence Audits," Subcommittees on Finance and Economics of the National Association of Regulatory Commissioners (NARUC), Clearwater, Florida, 1985.

"Measuring Utility Investment Risk Using Option Pricing and Time State Preference Models," NARUC Subcommittee on Finance, Clearwater, Florida, 1984.

"Developing a Comparable Sample for Cost of Capital Using Cluster Analysis," NARUC Subcommittee on Finance, San Diego, California, 1984.

"Regulation and Disinflation," NARUC Subcommittee on Finance, San Diego, California, 1984.

"The Search for Optimal Capital Structure," National Society of Rate of Return Analysts, Washington, D.C., 1984.

"Phase-ins: The Neglected Dimension," Mid America Regulatory Conference, Chicago, IL,1984.

"Reconciling Value Estimates of Public Utility Property." Midwest Association of Utility Property Appraisers, Springfield, Illinois, 1983.

Associations and Memberships

Kansas City Council on Business Economics, President - 1991-1993

Arbitrator - American Arbitration Association

Chairman, NARUC Subcommittee on Finance, 1983-1984

Faculty, NARUC Advanced and Regulatory Studies Program, 1983-1984

American Economic Association

American Finance Association

Financial Management Association

National Association of Business Economists

Selected Public Utility and Energy Economics Projects

On behalf of Williams Natural Gas Company before the Missouri Public Service Commission, GR-94-101 and GR94-228. January, 1996. Testimony on competitiveness of commodity and transportation markets. Gary Boyle, Williams Companies Legal Department.

On behalf of Kansas Pipeline Partnership before the Kansas Corporation Commission for Approval andto Make Effective Certain Gas Purchase Contracts between Kansas Pipeline Partnership and Western Resources, Inc. et al, Dockets No. 192,506-U, 192,391-U, and 192,507-U - October, 1995. Reasonableness of prices and terms of a proposed pipeline. John Frieden, Frieden; Haynes, Forbes. (Topeka, Kansas) and Gary Boyle; Williams Natural Gas Company, (Tulsa, Oklahoma).

Application of Kansas Pipeline Partnership et al., Docket No. 190,362-U, October, 1994. Presentedtestimony regarding the regulatory and business climate of the natural gas industry from 1970 through 1994 and how changes in the industry affected the competitive environment faced by the joint applicants. John Frieden, Frieden; Haynes, Forbes, (Topeka, Kansas) and William J. Sears; Williams Natural Gas Company, (Tulsa, Oklahoma).

Application of Kansas Pipeline Partnership et al., Docket No. 190,362-U, October, 1994. Presented testimony regarding the regulatory and business climate of the natural gas industry from 1970 through 1994 and how changes in the industry affected the competitive environment faced by the joint applicants. John Frieden, Frieden; Haynes, Forbes, (Topeka, Kansas) and William J. Sears: Williams Natural Gas Company, (Tulsa, Oklahoma).

Agricultural Energy Consumers Association. Presented testimony in Pacific Gas and Electric 1991 ECAC proceeding and 1992 General Rate Case regarding marginal cost, value of service and revenue allocation to the agricultural class.

American Public Gas Association. With J. Rodney Lemon, prepared white paper entitled <u>Local Gas Distribution Companies and Pipeline Market Power: Workable Competition or Unregulated Monopolization</u> for presentation by the APGA to Congress, the FERC and other interested parties. Included in study are survey of municipal LDCs, quantifying the extent of cost shifting and development of alternative regulatory policies. May - September 1991.

Memphis Light Gas & Water Division. Gas Supply Options Study. Evaluated options for gas supply through 2000. Projected future gas costs, pipeline rates and demand by customer segment. Built an optimization model to estimate the optimal level of firm demand for future years given historical weather patterns. Evaluated economics of expanding LNG facility. Performed a strategic analysis of various gas supply and transport portfolios. February 1991 - July 1991.

Memphis Light Gas & Water Division. <u>Electric Supply Options Study</u>. Evaluated alternatives for securing electric supply through 2010. Included projecting future TVA rates by building a large-scale integrated financial and production cost model of the TVA, forecasting demand for TVA power and forecasting future capacity needs of Memphis. November 1989 - February 1990.

City of Long Beach. Evaluated four possible gas supply strategies including pipeline purchase and operation. January 1990 - April 1990.

South Coast Air Quality Management District. Assessed the need for and costs and benefits of additional pipeline capacity into Southern California. November 1988 - July 1989

Metropolitan Water District of Southern California. Determined the financial consequences of conservation programs on water utilities and developed rate offsets to make up revenue shortfalls resulting from conservation. June, 1989.

U.S. Department of Energy. Participated in a regulatory options study for the Office of Policy and Planning, 1989.

Meade County v. Panhandle Eastern Pipeline Company. Testified before the Tax Review Board of the Kansas Department of Revenue on the valuation of gas storage facilities, Summer 1989.

Commonwealth Edison Company, Docket 90-0169, Illinois Commerce Commission, Topics: Deferred plant accounting, cost of coal, and off-systems sales.

Commonwealth Edison Company, Docket 87-0427, Illinois Commerce Commission, Jan. 1988. Topics: Price competitiveness; relative cost of coal, and suggestions for changes in system operations.

Board of Public Utilities, Kansas City, Kansas. Developed a structural framework for analyzing the benefits of selling this municipal utility to private investors.

Gulf States Utilities, Docket 6755, Public Utility Commission of Texas, August 1987. Topic: The prudence of the corporate planning process of Gulf States Utilities. Retained by the Commission to evaluate the testimonies of the various parties to this case.

Quapaw Water Company, Public Service Commission of Arkansas, March 1987. Topic: General Waterworks acquired Quapaw at a price below book value. Commission staff and interveners sought to have rate base adjusted to reflect an acquisition adjustment. Presented testimony on behalf of the Company rebutting staff and intervenor positions.

U.S. Department of Energy, as a subcontractor to Charles River Associates. Topic: Study of Rate Shock. Developed a revenue requirement and pricing model to evaluate the impacts of relative project size, cost per kilowatt of capacity, demand growth and rate moderation strategies on rate shock.

United Telephone Company of Missouri, Public Service Commission of the State of Missouri, Topic: cost of equity capital (included preparation in anticipation of cost on issue of the impact of different regulatory treatments of working capital and impact of cost of capital calculation).

Public Service of Indiana, Public Service Commission of Indiana, August, 1985. Topics: financial condition of PSI, financial forecasts, financial and regulatory policies to restore financial health.

Utility Diversification in the State of Wisconsin, Public Service Commission of the State of Wisconsin, July 1985. Topics: cost of capital, pricing of transactions and asset transfers between affiliated interests, capital structure, regulatory policy.

Kansas City Power and Light Company, Kansas Corporation Commission, June, 1985. Topics: phase-in of Wolf Creek revenue requirement, regulatory policy, pricing in competitive markets.

Arizona Public Service Company, Arizona Corporation Commission, October, 1984. Topics: phase-in of Palo Verde revenue requirement, cost/benefit of CWIP in rate base, cost of capital affects of incentive plans, financial condition of APS and likely bond ratings, financial forecast.

Central Illinois Public Service Company, Illinois Commerce Commission, April, 1984. Topics: optimal capital structure, preferred stock defeasance.

Illinois Power Company, Illinois Commerce Commission, June, 1983. Topics: CWIP/AFUDC cost/benefit analysis.

Iowa-Illinois Gas and Electric Company, Illinois Commerce Commission, May, 1983. Topics: phase-in of Louisa Generating Station including tax and accounting implications, financial condition of IIG&E.

American Bell, Inc., Illinois Commerce Commission, January, 1983. Topics: valuation of detariffed assets, compensation for investment in employee training.

Civil Litigation Testimony - Business Litigation and Valuation

Jacobs v Brown, No. 84-0887-CV-W-9, U.S. District Court, W.D. Missouri. Retained by defendant's counsel to quantify damages resulting from the termination of a distributorship. Attorney - Terry Tyrell; Margolin & Kirwan.

Woods v Capital Cities/ABC, No. 86-3396-CV-S-4, U.S. District Court, W.D. Missouri. Perform analysis of gains to defendant resulting from merger and defendant's ability to pay damages sought by plaintiff. Attorney - Michael Testerman; Daniel, Clampett, Lilley, Dalton, Powell & Cunningham.

Jackson Realty v. Brown, et al., No. 86-C-354, District Court of Leavenworth County, Kansas. Quantification of damages resulting from breach of clause not to compete and violation of fiduciary responsibility. Attorney - Jeffrey L. Baxter; Chapman & Waters.

U.S. v. Zeitlin, No. C 87-20084, U.S. District Court, District of Kansas. Analysis of damages to purchaser from bid splitting. Attorney - James L. Eisenbrandt; Morris & Larson

McCollum v. Kansas City, Kansas, District Court of Wyandotte County, Kansas. Valuation of a firm as a going concern in an inverse condemnation proceeding. Attorney - Renee M. Gurney; City of Kansas City, Kansas.

Great Western Directories v. Southwestern Bell, et al., No. CA2-88-218, U.S. District Court, Northern District of Texas, Amarillo Division. Analyzed the structure of the directory advertising market; the conduct of Southwestern Bell in pricing of White Pages listing information; and, the results of that conduct on competition in the market and damages to the plaintiff. Attorney - Robert E. Garner, Nancy J. Stone; Garner, Stone and Lovell. (Amarillo, TX)

Starcom, Inc. v. U.S. Telecom, Inc., et al., No. 87-2540-5, U.S. District Court, District of Kansas. Analysis of the economic and financial viability and value of a long-distance reseller. Attorney - R. Frederick Walters; Linde Thomson, et al.

Johnson v. Challenge Consultants Inc., No. 87 CV 1401, District Court of Shawnee County Kansas. Valuation of firm including evaluation of corporate goodwill. Attorney Rod Richardson; Wallace, Saunders, et al. (Overland Park, KS)

Meade County v. Panhandle Eastern, Kansas Department of Revenue. Effect of regulation on measures of value and nature of cost pass throughs. Attorney - Ben Neil; Perry and Hamill. (Overland Park, KS)

Crown Building Supplies, Inc. v. Peachtree Doors, Inc., No. 88-2592-0, U.S. District Court, District of Kansas. Analyzed liability and damage claims in breach of contract case. Attorney - John L. Taylor; Vincent, Chorey, et al. (Atlanta, GA)

Southwest Hides Co. v. Panhandle Processing Co. et al., No. CA-5-88-0141-C, U.S. District Court for Northern District of Texas. Computation of damages resulting from business interference. Action brought under RICO. Attorney - John Lovell; Garner, Stone and Lovell. (Amarillo, TX)

Connie L. Preble v. John C. Preble, District Court of Phillips County, Kansas. Business Valuation. Attorney - Harold McCubbins. (Norton, KS)

Federal Sign Company v. Duravision, Inc. et al, No. SA-90-CA-394, U.S. District Court, Western District of Texas. Valuation of a start-up company. Attorney - Sam L. Stein; Garner, Stone and Lovell (Amarillo, TX)

Encore International v. Action Bindary, et al. County Court, Fulton County, Georgia. Estimation of lost profits due to destruction of products catalog. Attorney - Michael Cole; Vincent, Chorey, Taylor & Feil. (Atlanta, GA)

First National Bank of Utah v. Goldston, et al U.S. District Court, Northern District of Texas. Developed analysis of the benefits to a party to a check kiting and fraud conspiracy in RICO action. Attorney - John Harrington; Ray, Quinney & Nebeker (Salt Lake City, UT).

Metro Chevrolet Dealer/GM Arbitration, Endispute. Evaluation of the market for Chevrolet automobiles in Kansas City and assessment of the effects of adding an additional dealership on the financial performance of the existing dealers in Johnson County. Attorney - Robert Jester; Ensz & Jester.

SD1 Operating Partners v. Manko Window Systems, Inc., et al. No. 91c3873, District Court of Johnson County, Kansas. Analysis of lost profits resulting from violation of a non compete covenant. Attorney -Jan Helder; Spencer, Fane, Britt & Browne. (Kansas City, MO)

Robert E. Gulde, M.D. v. St Anthony's Hospital, et al. No. 73,629-D, District Court of Potter County, Texas. Antitrust analysis and damages calculation related to boycott of physician. Attorney - Robert E. Garner; Garner, Stone & Lovell. (Amarillo, TX)

City of Halstead v. Franklin J. Stucky, et al. No. 91-C-6268, District Court of Harvey County Kansas. Analysis of feasibility of developing a historic landmark into a tourist destination and impact of landmark status on property value. Attorney - Steven Kerwick; Foulston & Siefkin. (Wichita, KS)

KMS, Inc. v. Conagra Pet Products, Inc. No. 90-1582-T, U.S. District Court, District of Kansas (Wichita, KS). Analysis of financial condition of plaintiff at time of contract and claim of damages due to contract recission. Attorney - John P. Passarelli; McGrath, North, et al (Omaha, NE).

Zayler v. Great Western Directories, Inc. No 90-90760-5, U.S. Bankruptcy Court E. District of Texas. Valuation of two telephone directories. Attorney - John Lovell; Garner, Stone & Lovell. (Amarillo, TX)

Beehive Pizza v. Dominos, Case No. 92-C-0613G, U.S. District Court, Utah. Economics of franchisee -franchisor relationship and analysis of franchisor actions in context of good faith and reasonableness. Attorney - Robert Moore; Giaque, Crockett & Bendinger (Salt Lake City, UT)

City of Kansas City v. Eugene Manfield. Case No. CV91-0158, Circuit Court of Jackson County, Missouri. Valuation of a location-dependent business. Attorney Preston Williams; Williams & Barzee. (Kansas City, MO)

Allied Toy v. Pappa Gepetto's, Case No. 92-2030-0, U. S. District Court, Kansas. Estimation of damages to plaintiff due to interference with marketing of new product and analysis of cross claim for damages for lost sales due to copyright violation. Attorney - Paul Lamoree; Gallas & Schultz.

Nevada Power Company v Monsanto Company, et al, Case No. CV-S-89-555, U.S. District Court, Nevada. Attorney - Steven R. Kuney, Williams & Connolly, (Washington, D.C.).

Bluebonnet Savings Bank v Federal Deposit Insurance Corp., Case No. CA3-91-1066-X, U.S. District Court, Northern District of Texas Dallas Division. Attorney - Jeremy Butler; Lewis and Rocca. (Phoenix, AZ)

Richard B. Cray, et al. v. Deloitte, Haskins & Sells, Case No. 90-C-682-E. U.S. District Court, Northern District of Oklahoma. Securities fraud (10b - 5). Attorney - Daniel Bukovac; Watson, Ess, et al. (Kansas City, MO)

Computer Equipment Useful Life Analysis, Case No. 92-13440-EQ and No. 93-3108-PR, State Board of Tax Appeals. Testimony before property tax review boards in states of Kansas and Missouri on economic lives of various types of computing equipment. Attorney - Ben Neil; Neil and Terrill. (Overland Park, KS)

Security Pacific v Cape Mobile Home Mart, Case No. CV191-866CC, Union, County, Missouri. Analysis of lender liability claim regarding failure of multi-state mobile home sales company. Valuation of firm prior to liquidation. Attorney - Frank Gundlach; Armstrong, Teasdale et al. (St. Louis, MO)

Eckholt v ABI, Case No. 93-2440-KHV, United States District Court for the District of Kansas. Analysis of the performance of a public seminar company and valuation of an ownership interest. Attorney - Mark Hinderks; Stinson, Mag, Fizzell. (Overland Park, KS)

Sept. 6, 1991 Roof Collapse, Case No. A308835, District Court Clark County, Nevada. Valuation of a service firm in a destruction of business case. Attorney - Steven L. Day; Cohen, Johnson & Day. (Las Vegas, NV)

National Liberty Corporation v Walmart/Sedgwick James, Case No. 4:94-CV-1818-FRB, United States District Court for the Eastern District of Missouri Eastern Division. Analyze lost profits claims in breach of contract case. Attorney - John S. Sandberg, Sandberg, Phoenix & von Gontard. (St. Louis, MO)

Donnelley v Sprint Publishing, No. 95 C 5825, U.S. District Court, Northern District of Illinois, Eastern Division. Conduct analysis of Greater Chicago yellow pages directory market. Estimate damages claimed by plaintiff from Sprint's alleged competition with a Sprint/Donnelley partnership and estimate damages alleged in Sprint's counterclaim.